

CLAIM AMENDMENTS

1-3. (canceled)

4. (currently amended): ~~A composition of claim 1 wherein the substance comprises an~~
An antibody or fragment thereof that specifically binds to a 108P5H8-related protein having at least
90% sequence identity to SEQ ID NO.: 2570.

5. (currently amended): The antibody or fragment thereof of claim 4, ~~which is~~ wherein
the antibody is a monoclonal antibody.

6. (currently amended): ~~A recombinant protein comprising an antigen-binding region~~
~~of a monoclonal~~ The antibody or fragment thereof of claim 5, wherein the monoclonal antibody is
recombinantly produced.

7. (currently amended): The antibody or fragment thereof of claim 4, ~~which~~ wherein
the antibody or fragment thereof is labeled with a detectable marker.

8. (canceled)

9. (currently amended): The antibody or fragment of an antibody thereof of claim 4,
~~which is an~~ wherein the fragment thereof is selected from the group consisting of Fab, F(ab')₂, Fv
[[or]] and sFv[[fragment]].

10. (currently amended): The antibody or fragment thereof of claim 4, ~~which~~ wherein
the antibody is a human antibody, a humanized antibody or a chimeric antibody.

11. (currently amended): A non-human transgenic animal that produces an antibody
~~of claim 4~~ that specifically binds to a protein having at least 90% homology to SEQ ID NO.: 2570.

12. (currently amended): A hybridoma that produces an antibody ~~of claim 5~~ that specifically binds to a protein having at least 90% homology to SEQ ID NO.: 2570.

13. (currently amended): ~~[[A]] The antibody or fragment thereof of claim 6, wherein the monoclonal antibody is a single chain monoclonal antibody that immunospecifically binds to a 108P5H8 related protein, and that comprises the variable domains of the heavy and light chains of a monoclonal antibody of claim 5.~~

14. (currently amended): A vector comprising a polynucleotide that encodes a single chain monoclonal antibody ~~of claim 13~~ that specifically binds to a protein having at least 90% homology to SEQ ID NO.: 2570.

15. (currently amended): A method of delivering ~~a cytotoxic~~ an agent or a diagnostic agent to a cell that expresses 108P5H8, ~~said method~~ comprising:

providing the ~~eytotoxie~~ agent or the diagnostic agent conjugated to an antibody or fragment thereof ~~of claim 4~~ that specifically binds to a protein having at least 90% homology to SEQ ID NO.: 2570; and,

exposing the cell to the antibody-agent or fragment-agent conjugate.

16-64. (canceled)

65. (currently amended): A method of generating a mammalian immune response directed to 108P5H8, ~~the method~~ comprising:

exposing cells of the mammal's immune system to an immunogenic portion of

a) ~~an 108P5H8 related~~ a protein having at least 90% homology to SEQ ID NO.: 2570; and/or

b) a nucleotide sequence that encodes said protein,

whereby an immune response is generated to ~~108P5H8~~ one protein.

66. (currently amended): ~~[[A]]~~ The method of inducing an immune response of claim 65, wherein the protein having at least 90% homology to SEQ ID NO.: 2570 said method comprising:

~~providing a 108P5H8-related protein that comprises at least one T cell or at least one B cell epitope~~[[;

~~contacting the epitope with a mammalian immune system T cell or B cell respectively, whereby the T cell or B cell is induced]]~~.

67. (currently amended): The method of claim 66 wherein the immune system cell is a B cell, whereby the response comprises an induced B cell generates antibodies that specifically bind to the 108P5H8-related protein having at least 90% homology to SEQ ID NO.: 2570.

68. (currently amended): The method of claim 66 wherein the immune system cell is a T cell that is response comprises activation of a cytotoxic T cell (CTL), whereby the activated CTL kills an autologous cell that expresses the ~~108P5H8-related~~ protein having at least 90% homology to SEQ ID NO.: 2570.

69. (currently amended): The method of ~~claim 66~~ claim 68 wherein the immune system cell is a T cell that is response comprises a helper T cell (HTL), whereby the activated HTL secretes cytokines that facilitate the cytotoxic activity of a cytotoxic T cell (CTL) or the antibody producing activity of a B cell.

70. (currently amended): An assay for detecting the presence of a ~~108P5H8-related~~ protein ~~or polynucleotide~~ having at least 90% homology to SEQ ID NO.: 2570 in a biological sample and a normal sample obtained from a patient who has or who is suspected of having cancer, comprising ~~steps of~~:

contacting the biological sample with a substance of claim 1 and the normal sample with an antibody or fragment thereof that specifically binds to the ~~108P5H8-related~~ a protein or polynucleotide, respectively having at least 90% homology to SEQ ID NO.: 2570; and, determining ~~5H8-related polynucleotide, respectively~~ if the antibody binds to the biological sample or the normal sample, whereby binding indicates the presence of the protein.

71-74. (canceled)

75. (currently amended): A method for ~~monitoring~~ detecting expression levels of a 108P5H8 gene ~~products~~ product in a biological sample and a normal sample from a patient who has or who is suspected of having cancer, ~~the method~~ comprising:

~~determining the status of 108P5H8 gene products expressed by cells in a tissue sample from an individual~~ product expression levels of the 108P5H8 in the biological and normal sample obtained from the patient;

~~comparing the status so determined to the status~~ expression levels of the 108P5H8 gene ~~products in a corresponding normal sample; and,~~

~~identifying the presence of aberrant 108P5H8 gene products in the sample relative to the normal sample~~ product detected in the biological sample and the normal sample obtained from the patient, wherein the 108P5H8 gene product is selected from the group consisting of 108P5H8 mRNA or a protein that is at least 90% identical to SEQ ID NO.: 2570.

76. (currently amended): ~~A method of monitoring the presence of cancer in an individual comprising: performing the~~ The method of claim 75 whereby the presence of elevated gene products 108P5H8 mRNA or 108P5H8 protein in the [[test]] biological sample relative to the normal tissue sample indicates the presence or status of a cancer in a biological sample.

77. (currently amended): The method of claim 76 wherein the cancer occurs in a tissue ~~set forth in Table I~~ selected from the group consisting of breast, colon, kidney, lung, ovary, pancreas and prostate.

78. (new) The antibody or fragment thereof of claim 4, wherein the antibody or fragment is labeled with an agent.

79. (new) The antibody or fragment thereof of claim 78, wherein the agent is a diagnostic agent or a cytotoxic agent.

80. (new) The antibody or fragment thereof of claim 79, wherein the cytotoxic agent is selected from the group consisting of radioactive isotopes, chemotherapeutic agents and toxins.

81. (new) The antibody or fragment thereof of claim 80, wherein the radioactive isotope is selected from the group consisting of At²¹¹, I¹³¹, I¹²⁵, Y⁹⁰, Re¹⁸⁶, Re¹⁸⁸, Sm¹⁵³, Bi²¹², P³² and radioactive isotopes of Lu.

82. (new) The antibody or fragment thereof of claim 80, wherein the chemotherapeutic agent is selected from the group consisting of taxol, actinomycin, mitomycin, etoposide, tenoposide, vincristine, vinblastine, colchicine, gelonin, and calicheamicin.

83. (new) The antibody or fragment thereof of claim 80, wherein the toxin is selected from the group consisting of diphtheria toxin, enomycin, phenomycin, Pseudomonas exotoxin (PE) A, PE40, abrin, abrin A chain, mitogellin, modeccin A chain, and alpha-sarcin.

84. (new) The method of claim 15, wherein the agent is a diagnostic agent or a cytotoxic agent.

85. (new) The method of claim 84, wherein the cytotoxic agent is selected from the group consisting of radioactive isotopes, chemotherapeutic agents and toxins.

86. (new) The method of claim 85, wherein the radioactive isotope is selected from the group consisting of At²¹¹, I¹³¹, I¹²⁵, Y⁹⁰, Re¹⁸⁶, Re¹⁸⁸, Sm¹⁵³, Bi²¹², P³² and radioactive isotopes of Lu.

87. (new) The method of claim 85, wherein the chemotherapeutic agent is selected from the group consisting of taxol, actinomycin, mitomycin, etoposide, tenoposide, vincristine, vinblastine, colchicine, gelonin, and calicheamicin.

88. (new) The method of claim 85, wherein the toxin is selected from the group consisting of diphtheria toxin, enomycin, phenomycin, Pseudomonas exotoxin (PE) A, PE40, abrin, abrin A chain, mitogellin, modeccin A chain, and alpha-sarcin.